Staff Qualifications and Training

I. Purpose: To provide adequately trained individuals who can perform radioactive materials licensing, inspections, and investigations which will protect workers and the public from unnecessary exposure to radiation.

II. Applicability: This procedure provides guidance for the qualification and training requirements for individuals who perform licensing and inspection duties or who investigate incidents for the Radioactive Materials Section. Individuals assigned to other sections may be used for emergent investigations on a case-by-case basis subject to the approval of the Radioactive Materials Section Supervisor or the Division Director.

III. Policy: All individuals who perform radioactive materials technical assignments shall:

1) receive on the job training in the task
2) receive formal classroom training in the task as soon as practical
3) be reviewed and authorized by supervisory or program management personnel, and
4) perform duties commensurate with their qualifications and training

The foundation of the requirements is a performance based “learn, do, and be reviewed” format. An individual shall not be an independent inspector, investigator, or license reviewer for a license until he or she has demonstrated competency in the program training area applicable to that type of license. All training (including basic, specialized, advanced, and continuing or refresher) is encouraged and supported by the Radioactive Materials Section and shall be in accordance with program needs and as funding allows. A central record for each individual shall be maintained in an easy to retrieve, auditable format. Records of training will be retained for five years beyond the end of employment of each individual.

IV. Qualifications:

Individuals who will perform the full range of inspections or licensing actions shall be Radiation Health Physicists 1, 2, or 3 (with minimum qualifications as prescribed by the State Board of Personnel). The supervisor of the Radioactive Materials Section (Washington Management Service 2) shall have had a minimum of four years experience as a Radioactive Materials Section RHP 2 or 3, or equivalent, and have received applicable training before performing inspections or investigations, reviewing licenses, or accompanying inspectors for

evaluation purposes. Other individuals who assist in team inspections, or who independently perform inspections or licensing actions, shall be restricted to low risk activities and license types (e.g., gauges and small sealed sources) and have appropriate training or prior experience before being allowed to function in those capacities.

V. Program Training Categories: The categories of licensing and inspection requiring training and specific approval prior to full participation are:

1) Industrial Gauge - fixed, portable, gas chromatograph, general license
2) Laboratories - unsealed material; includes veterinary uses
3) Nuclear medicine and radiopharmaceutical therapy
4) Teletherapy and brachytherapy
5) Industrial radiography and irradiators
6) Broad-scope - industrial, academic, medical
7) Manufacturers; pharmacies; PET distribution
8) SS&D evaluation
9) Well logging

Any type of radioactive materials use not specifically covered above should be licensed or inspected by individuals qualified in the category most nearly reflecting the nature and degree of radiological hazard present.

VI. Approval for Licensing

Before independently reviewing licensing actions in any category, an individual shall:

1) Demonstrate knowledge of Washington radiation regulations, standard license conditions, and basic licensing practices
2) Accompany an inspector on at least one inspection of a licensee
3) Complete, under supervision, at least three major licensing actions in a single category, and
4) Obtain the approval of the program manager or Section Supervisor.

Before reviewing additional categories of licensing, a reviewer shall:

1) Complete, under supervision, at least one major licensing action in that category, and
2) Obtain the approval of the program manager or Section Supervisor.

Satisfactory completion of the NRC's "Licensing Practices and Procedures" course or equivalent is required but should be scheduled after the reviewer has had six months of experience and should be taken within two years of becoming a reviewer. Demonstration of knowledge may be orally or by written exam or

other method acceptable to the program manager or Section Supervisor. Separate documentation of supervised reviews is not required.

A previously experienced license reviewer may be approved upon satisfactorily demonstrating knowledge of Washington radiation regulations and licensing procedures specific to the category.

VII. Approval for Inspections

Before independently performing inspections in a given category, an individual shall:

1) Demonstrate knowledge of Washington radiation regulations and basic inspection procedures applicable to the category
2) Accompany an inspector on at least one inspection of a licensee in the category
3) Conduct satisfactorily, under observation, at least two inspections in the category, and
4) Obtain the approval of the program manager or Section Supervisor.

Satisfactory completion of the NRC's "Inspection Procedures" course and "Transportation of Radioactive Materials" course or their equivalents is required but should be scheduled after the inspector has had several months of experience and should be taken within two years of becoming an inspector. Other NRC courses constituting "specialized training" should be taken as soon as practical and as appropriate to the type of inspections being performed. Demonstration of knowledge may be orally or by written exam or other method acceptable to the program manager or Section Supervisor. Identification of two observed inspections is required for each training category.

A previously experienced inspector may be approved upon satisfactorily demonstrating knowledge of Washington radiation regulations and inspection procedures, and conducting satisfactorily, under observation, one inspection specific to the category. The observed inspection for additional categories may be waived by the Section Supervisor based on recentness of experience.

VIII. Incident Investigation

Incident investigators shall have relevant experience in control of radioactive materials. The program manager or Section Supervisor shall evaluate each investigator’s experience before being authorized to perform investigations for the Radioactive Materials Section. In the case of emergent situations, when no trained and approved investigators are available, individuals, including those assigned to other sections, may be used on a case-by-case basis subject to the discretion of the Section Supervisor or the Division Director.

Individuals performing investigations should be qualified inspectors. NRC advanced training ("Root Cause/Incident Investigation" and "Health Physics Technology") and DOH Investigator training should be taken as soon as practical.

IX. Sealed Source and Device Evaluations

Only individuals who have received NRC's formal classroom and practical training in the sealed source and device program will perform sealed source and device evaluations and concurrence reviews.

X. Training Courses

The Radioactive Materials Section will use DOH and NRC sponsored training courses whenever possible. Equivalent courses may be substituted when necessary. Individuals should self-identify courses and request authorization to attend as they become aware of appropriate courses, particularly DOH and NRC courses. The Section Supervisor will make every effort to send staff to training that will further the ability of the Radioactive Materials Section to protect workers and the public.

Required or recommended NRC courses are listed on the Materials Section Qualification Journal. Prior relevant course work, experience, and education may be substituted for these courses, upon the recommendation of the Section Supervisor and approval of the Division Director.

XI. Continuing Training

All technical staff are encouraged to seek appropriate training and are expected to attend Division of Radiation Protection training when offered. The requirement for additional training recognizes that all licensing and inspection personnel need to keep current with new developments, refine existing skills, and develop professionally. Continuing training consists of circulated documents, staff meetings, and, when practical, attendance at professional meetings and conferences and formal classroom training. The Division library is also available for reference material.

Documentation of this training will be by the individual's initials on circulated documents, identifying the individual as present in meeting minutes, signing or initialing class rosters or copies of certificates of completion (or equivalent).

XII. Procedure

The Section Supervisor shall establish a central training record for each individual routinely performing licensing, inspection or investigation duties for the Radioactive Materials Section. The individual training record shall consist of a Materials Section Qualification Journal, copies of certificates of course completion (when available), previous "qualification" records (when available), and any written justification for replacement courses or exemptions granted based on prior training or experience.

The Section Supervisor or the appropriate program manager shall track the progress of each individual toward qualification in each program training category. A record of the qualifying inspections shall be maintained by the Compliance Program Manager. No separate record is required for qualifying license reviews. As each training category is satisfied, the Section Supervisor or the program manager shall sign and date the Materials Section Qualification Journal indicating that the individual has demonstrated competence to work independently in that category. It is the responsibility of the Section Supervisor to ensure that no individual is assigned duties beyond their qualifications and training.

References

1. "NRC/OAS Training Working Group Recommendations for Agreement State Training Programs", October 1997
2. DOH Standard Operating Procedures for Investigators, DRAFT,1999

APPENDIX A

Materials Section Qualification Journal

Name: _____ Classification: WMS __ RHP __ Other __

	Date Completed	Manager/Supervisor Signature
BASIC TRAINING		
Radiation Safety/ER Training	_____	_____
Review of State Regulations	_____	_____
Section Procedures Review	_____	_____

SPECIALIZED TRAINING

NRC Course	Date Completed
Fundamentals of Inspection Course (G-101)	
Inspection Procedures Course (G-108)	
Licensing Practices and Procedures Course (G-109)	
Transportation of Radioactive Materials Course (H-308)	
Diagnostic and Therapeutic Nuclear Medicine Course (H-304)	
Teletherapy and Brachytherapy Course (H-313)	
Safety Aspects of Industrial Radiography Course (H-305)	
Safety Aspects of Well Logging Course (H-314)	
Inspecting for Performance (G-304)	
Root Cause/Investigations (G-205)	

NRC Course	Date Completed
Environmental Monitoring (H-111)	
Air Sampling for Rad Material (H-119)	
Internal Dosimetry & Whole Body Counting Course (H-312)	
Irradiator Technology Course (H-315)	
SS&D Workshop	
Introductory Health Physics (H-117)	
Health Physics Technology (H-201)	
Applied Health Physics - 5 weeks (H-109)	
Rad Surveys for D&D (H-120)	
MARSSIM (H-121)	

List Additional Significant Courses or Alternative Courses taken:

Date Completed	Course Title	Supervisor Approval if Alternative
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Name: _____ Qualifications Journal (continued)

Training Category	Approved* for Licensing by:	Date	Approved* for Inspecting by:	Date
Industrial Gauge				
Laboratories - unsealed material				
Nuclear medicine & therapy				
Teletherapy and brachytherapy				
Radiography - Irradiator				
Broad-scope				
Manufacturer; Pharmacy				
SS&D Evaluation				
Well logging				

*Approval is based on demonstrated knowledge of the applicable regulations, knowledge of the procedures, and performance. Approval may be given by the Section Supervisor or by the responsible program manager.

INVESTIGATIONS

This individual is authorized to perform any and all investigations referred to the Radioactive Materials Section.

Date: _____ Supervisor: _____

This individual is authorized to perform investigations involving radioactive material and types of uses for which inspection approval has been granted.

Date: _____ Supervisor: _____